

THE POWER OF SIMULATION

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## CHAPTER 1

### INTRODUCTION

On 15 October 1978, forces from the Soviet Union and Hungary invaded Yugoslavia, followed by attacks before month's end on Finland, Greece, Turkish Thrace, Norway, Denmark, and Austria. General David C. Jones, Chairman of the Joint Chiefs of Staff, and the other military leaders on the Joint Chiefs of Staff had spent their entire careers preparing to counter just such Soviet aggression. They immediately executed contingency plans prepared years before.

While Soviet forces marched through one country after another, military leaders, in the United States encountered severe difficulties trying to deploy combat soldiers, supplies, and equipment to Europe. For example, soldiers from both the 1<sup>st</sup> Cavalry Division and the 9<sup>th</sup> Infantry Division were nearly flown into the combat zone before their equipment and supplies could possibly arrive by ship.<sup>1</sup> Fortunately, the problem was noticed and corrected before their departure. Other units, however, were not so lucky. Some deployed into active theaters of

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<sup>1</sup> *Detailed Analysis Report Exercise Nifty Nugget 78 (U)*, dated 11 April 1979, prepared by Operations and Exercise Analysis Branch Exercise Plans and Analysis Division Operations Directorate (J-3) OJCS. Deployment Processes, III-11. This source can be found in the USTRANSCOM Research Center located at Scott Air Force Base in Illinois. The research center holds all USTRANSCOM archival material as well as the retired historical reports and archives from the Joint Deployment Agency 1979-1987. The archive will be abbreviated as TCRC. Note that not all sources will have a file and record number because some have come from the archive's library and safes. The TCRC archive also has an extensive collection of documents on Nifty Nugget. Henceforth this particular source document will be abbreviated in the following manner, *Nifty Nugget 78 (U)*.

combat woefully short of personnel and equipment that had been left behind by the Air Force.<sup>2</sup> These units were forced to fight shorthanded, some for as long as four days, before the Air Force finished transporting the 14,304-bypassed soldiers.<sup>3</sup> Nevertheless, at least they had partially deployed into the combat theater, which was more than could be said for the West Coast Marine Amphibious Brigade. That unit's originally-scheduled 8-day rail movement across the United States ended up taking 100 days because the Army did not have adequate equipment at Camp Pendleton, California, to load the Marines' equipment onto trains.<sup>4</sup> None of the services -- Air Force, Navy, or Army -- was blameless. The military transportation system of planes, ships, trucks, and trains to support military defensive plans in Europe had proven unable to carry out its mission.

Fortunately for General Jones and the United States, the Soviet attack and the failed response of the American military took place not on the plains of Europe but in the processors of a Defense Department computer. It was a simulation, a computerized war game. Instead of being a disaster for the United States and its North Atlantic Treaty Organization [NATO] allies, the simulation was a profound and ominous warning of a failed strategic planning process.

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<sup>2</sup> *Nifty Nugget 78 (U)*, Section III – Deployment Processes, III-24, III-26, III-27.

<sup>3</sup> *Ibid.*, III-26, III-27.

<sup>4</sup> *Ibid.*, III-2.



Ironically, just a year before, the Joint Chiefs of Staff had conducted a study to analyze ten alternative methods for command and control over their military transportation system. Based on the results from that study they concluded unanimously that the nation's military transportation system, as it was currently organized, "would insure responsiveness to direction by the NCA [National Command Authority] in times of crisis/war."<sup>5</sup>

The computer-simulated Soviet invasion of Europe, code named NIFTY NUGGET 78, was designed to "test Service and joint plans and procedures during the full mobilization and initial deployment processes."<sup>6</sup> The operation itself lasted three weeks from 10 to 31 October 1978 and simulated a short-warning, fast-breaking attack by Warsaw Pact forces on NATO forces in Europe.

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<sup>5</sup> Joint Chiefs of Staff memorandum JCSM-264-77, dated 15 June 1977, sent to the Secretary of Defense, Subject: Transportation Operating Agency Organization Alternatives, 1, file 32-A-3-A, RG 32, TCRC. The Joint Chiefs identified only one other alternative as seeming to have "some relative merit." That system was a transportation command comprised of all three of the service transportation management agencies working together as a unified command. The Joint Chiefs also noted, in a memorandum to the Secretary of Defense outlining their findings, that each service's transportation agency's responsiveness "to direction by the NCA during periods of crisis/war might be improved by formally establishing a direct organizational relationship to the Joint Chiefs of Staff." Nonetheless, they concluded that since "no major deficiencies were identified within the current peacetime and wartime...structure and, unless an in-depth cost-benefit analysis indicates significant projected long-range saving, no further organizational realignments...should be undertaken." All quotations are taken from JCSM-264-77, 15 June 1977.

<sup>6</sup> Joint Chiefs of Staff memorandum JCSM-465-77, dated 10 January 1978, sent to the Secretary of Defense, Subject: Exercise NIFTY NUGGET 78 (U), 1, TCRC. This memorandum also provided a brief history of the origins of the exercise. The memorandum states that a memorandum from the Secretary of Defense, 23 December 1976, "Mobilization and Deployment Planning Guidance," directed the Joint Chiefs of Staff and the Services to make plans for an "extensive testing of the full mobilization process." By August 1977, the Office of the Joint Chiefs of Staff informed the chiefs of the services and the commanders of the unified and specified commands that a joint mobilization exercise would be run in October 1978. The concept and objectives for Exercise NIFTY NUGGET 78 were published as an attachment to JCSM-465-77 in January of 1978.

The exercise featured an escalation of international tensions between the United States and the Soviet Union over the six months preceding the exercise. Fears and domestic unrest intensified as the dollar's value spiraled downward and inflation and unemployment skyrocketed. The Soviet Union saw these events as an excellent opportunity to globally flex its muscles by increasing deployments of naval ships, intensifying harassment of allied shipping, and elevating financial and military aid to African, Asian, and Middle Eastern nations. Tensions rose further when the Soviets threatened to "close the Berlin corridors to allied transportation" and deployed 120,000 fresh soldiers to forward areas of East Germany while pulling back only half of the soldiers currently located in that area of operations.<sup>7</sup> On 10 October, when the simulation began, attack from the Warsaw Pact appeared imminent. Participants prepared for what seemed to be certain war; reservists were called-up, men were registered through the selective service system, and the President declared a national emergency. On 13 October, the nation began a partial mobilization. Two days later, forces from the Soviet Union and Hungary launched their attacks.<sup>8</sup>

Participants from fifty-two different Department-of-Defense and federal civil departments and agencies (see appendix A) manned response cells and reacted to computer-generated scenarios just as they would during actual

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<sup>7</sup> Nifty Nugget 78 (U), Executive Summary, EX-3.

<sup>8</sup> Ibid., EX-7/8.

mobilization and deployment.<sup>9</sup> NIFTY NUGGET marked the first time in the nation's history that an exercise of such magnitude and focus had been attempted.

The purpose of this paper is to discern why the Joint Chiefs of Staff found their military transportation system satisfactory in 1977 only to discover a year later during NIFTY NUGGET that it was woefully inadequate. Were the leaders on the Joint Chiefs of Staff, who were ultimately responsible for answering to the President about military readiness, aware of these problems? If so, why had they not been corrected? If not, why not? Finally, what does this experience portend for future strategic planning? This story illustrates the ways in which leaders in a large institution, like the military, change their corporate minds and strike out in new and uncomfortable directions.

A substantial body of scholarly literature provides insight into questions regarding military leaders and their capacity to innovate, but none of it seems to specifically address a situation like that encountered in 1977, a situation in which change was hampered by the inability of military leaders to adequately conceptualize their existing problems.<sup>10</sup> This study will ultimately argue that the power of simulation exercises, such as NIFTY NUGGET, stem from their ability

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<sup>9</sup> Ibid., EX-1.

<sup>10</sup> The works bearing the most relevance to the issues I am seeking to understand in this study are the following: Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars*, (Ithaca, NY: Cornell University Press, 1984); Stephen P. Rosen, "Military Effectiveness: Why Society Matters," *International Security*, Spring 1995, p. 5-31; and Kenneth N. Waltz, *Theory of International Politics*, (Reading, MA: Addison-Wesley, 1979).

to provide an impetus for positive change by enabling military leaders to realistically confront their systems of operation and make decisions for improvement based on what is best for warfighting.

The paper is divided into two chapters. The first, *NIFTY NUGGET – Background, Problems, and Solutions*, provides background information regarding simulation use by military leaders, the nation's system for managing military transportation, and the nation's security policy in 1978. It also outlines in greater detail the specific problems identified during NIFTY NUGGET and the solutions the Joint Chiefs of Staff implemented to resolve those problems. The second chapter, *Why Status Quo in 1977?*, is largely devoted to outlining one primary explanation for why the Joint Chiefs chose to retain their system of military transportation in 1977, but also considers other explanations which may be offered to explain these historic events.

## CHAPTER 2

### NIFTY NUGGET: BACKGROUND, PROBLEMS, AND SOLUTIONS

#### **Background**

The United States military's use of simulation or wargames dates back to the late 1800s.<sup>1</sup> The United States Navy began wargaming at the Naval War College in 1894 while the United States Army started wargaming at the Army Staff College in 1907.<sup>2</sup> No one is certain when wargames were first played. Many believe that man began using small objects to represent the maneuvers of warriors long before written history and probably from the time he began fighting organized warfare. Such games were not exclusive to any one culture; archaeological excavations in Greece, Egypt, Persia, India, and China have discovered miniature figurines representing military warriors and their equipment. Each civilization developed its own games and sets of rules; yet, whether it was India's game of chess, Japan's game of Go, or China's game of Wei Hai, each game introduced military leaders to basic principles of military thinking. The games required players to weigh their own strengths and weaknesses against those of their opponent and devise strategies and tactics to capitalize on those

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<sup>1</sup> All games are simulations, though the reverse may not be true. Many simulation exercises run by the military are not games because they may just test a particular technology or portion of a system. Garry Brewer and Martin Shubik make this distinction in their book *The War Game: A Critique of Military Problem Solving*, (Cambridge, MA: Harvard University Press, 1979).

<sup>2</sup> John Prados, *Pentagon Games: Wargames and the American Military*, (New York: Harper and Row Publishers, 1987), 4.

findings.<sup>3</sup> By the late 1800s and early 1900s all major world powers were using wargames to some extent in the training of their military leaders.<sup>4</sup>

The next natural progression was to evolve from using wargames in training to using them for planning military strategy and operations. Prussian General Alfred Graf von Schlieffen used wargaming to test plans and ultimately devise Germany's plan to attack France at the beginning of the First World War.<sup>5</sup> Throughout the war, Germany relied on wargames and found them particularly useful in their plans for the 1918 spring offensive; ironically the Germans ignored the indicators in that game which signalled that the offensive was unlikely to produce a decisive victory.<sup>6</sup> During the Second World War, the Japanese noticed shortcomings in their Pearl Harbor attack plan revealed by a wargaming session and concluded that by sailing from northern Japan and approaching Pearl Harbor from due north they were more likely to surprise the Americans.<sup>7</sup> More recently military leaders have relied upon wargames and simulations to guide research

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<sup>3</sup> For more information on the history of wargames also see Stephen B. Patrick, "The History of Wargaming," in *Wargame Design: The History, Production, and Use of Conflict Simulation Games* (New York: Simulations Publications, Incorporated, 1977); Peter P. Perla, *The Art of Wargaming: A Guide for Professionals and Hobbyists* (Annapolis, MD: Naval Institute Press, 1990); Garry D. Brewer and Martin Shubik, *The War Game: A Critique of Military Problem Solving* (Cambridge, MA: Harvard University Press, 1979).

<sup>4</sup> Brewer and Shubik, *The War Game*, 48.

<sup>5</sup> Perla, *The Art of Wargaming*, 41.

<sup>6</sup> Brewer and Shubik, *The War Game*, 49.

<sup>7</sup> John Prados, *Pentagon Games*, 1-2.

and development on new technologies, strategies, tactics, organizations and procedures.<sup>8</sup> NIFTY NUGGET had that purpose.

Military leaders today are just as apt as their predecessors to analyze and accept the results from wargame simulations. This seems somewhat surprising when one considers that most of these simulations are played out in a computer-driven world where the success or failure of a leader's actions are calculated by mathematical algorithms. It is easy to imagine that cold calculations and figures might be rejected by battle-hardened military leaders who have experienced the intangibles and mysteries of war first hand. However, this is generally not the case; instead, these leaders welcome the opportunity to test new tactics and strategies without incurring loss of life.

To put both NIFTY NUGGET and the larger story in which it plays a role into context, two other questions need elucidation: first, what was the nation's existing system for managing military transportation was in 1978, and second, what did the service chiefs require of that system. Remarkably the military transportation system that General Jones and the other service chiefs relied upon in 1978 had been in place without significant revision since the Office of the Assistant Secretary of Defense first developed it in 1955. It was a system designed to minimize duplications and inefficiencies among the transportation systems of the Army, Navy, and Air Force and yet still maintain peace between all three services. Interservice rivalry peaked in the years following the Second

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<sup>8</sup> Brewer and Shubik, *The War Game*, 50.

World War, requiring any plan to please each of the services. The design that won approval in 1955 was the "Single Manager Plan," so named because it placed each service in charge as the "single manager" of transportation assets in its area of expertise. The Air Force managed all aircraft, both military and civilian, used to move military personnel and equipment. Likewise the Navy controlled all shipping, and the Army commanded land transportation and ocean terminals.

Although the plan appeared effective on paper (see appendix B), it failed in practice; aspects of command and control were especially flawed.<sup>9</sup> A 1980 report from Harbridge House, a think tank contracted to analyze the "functional and organizational interrelationships" of the services' three transportation management agencies, described the system as being "characterized by splintered responsibilities and initiative, fractionated and incompatible systems, and divided loyalties and interests."<sup>10</sup> The report further emphasized that "such disparity of interests is evident in entrenched parochialism, inadequate and incorrect documentation, inefficient and duplicative procedures, added costs, and a limited ability to respond to national command authorities."<sup>11</sup> This was the state

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<sup>9</sup> The importance of command and control cannot be emphasized enough in a hierarchical environment like the United States armed forces. To have command and control over the forces and equipment of an organization is to have the authority to plan, direct, coordinate, and control their actions in the accomplishment of assigned missions. Each military organization's value is directly derived from its ability to successfully accomplish these missions.

<sup>10</sup> Harbridge House, A Study of DoD Organization for Transportation and Traffic Management, (Boston, MA: Harbridge House, 1980), I-1 and III-17, file 32.A-6-A, RG 32, TCRC.

<sup>11</sup> Ibid., III-17. It should be noted that these findings were published in 1981, but that the same description would have applied to the military transportation system in 1978.



of the transportation system that General Jones and other military leaders relied upon to support their role in the nation's overall national security strategy.

Since 1969, the United States military had been tasked to support a national security strategy generally known as the "one-and-one-half-war" strategy. The strategy calls for the nation to "maintain sufficient military forces to conduct operations simultaneously in a major conflict involving NATO and the Warsaw Pact and in a lesser conflict elsewhere."<sup>12</sup> In 1978, the United States considered an attack on NATO by Warsaw Pact forces its most dangerous contingency.<sup>13</sup> In his Annual Report to Congress in February of 1978, Secretary of Defense Harold Brown outlined several scenarios in which the Soviet Union might launch an attack on Central Europe. Each scenario differed on the length of warning time the United States could expect. In the same report, Secretary Brown also discussed the military's plans for facing contingencies in the Middle East, Northeast Asia, and the Persian Gulf.<sup>14</sup> Imperative to each contingency Secretary Brown outlined was the military's ability to quickly deploy conventional contingency forces around the globe.

This reliance on conventional forces may seem a bit surprising considering how large the United States' nuclear arsenal was in 1978, yet it was

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<sup>12</sup> Strategic Survey 1978, (London: The International Institute for Strategic Studies, 1978), 14.

<sup>13</sup> Harold Brown, Department of Defense: Annual Report, Fiscal Year 1979, (Washington, D.C.: U.S. Government Printing Office, 1978) 78.

<sup>14</sup> Ibid., 78-79.

in keeping with the nation's defense policy of "flexible response." In the 1960s the Kennedy administration continued the shift, which had begun under the Eisenhower administration, away from massive retaliation to a more "flexible response." In other words, the nation would prepare itself to respond to security threats with conventional as well as nuclear forces. This move was strengthened in 1967, when the member states of NATO agreed to depend less on nuclear defenses for deterrence, and again in 1977, when NATO made the bolstering of its conventional forces its first priority.<sup>15</sup> Another driving force behind this movement toward improved conventional forces came from the Soviet Union's achievement of nuclear parity with the United States in the 1970s. Nuclear parity made it all the more likely that East-West confrontations would be settled with conventional forces. Secretary Brown reported to Congress, in 1978, that "despite the attention we must give to the nuclear forces – both strategic and tactical – it is now generally agreed that the conventional forces of the United States and its allies deserve at least equal (and at present, in my view, greater) emphasis."<sup>16</sup> Implicit in that commitment was a requirement to be able to deploy soldiers and equipment around the globe on short notice. The disastrous results of the NIFTY NUGGET exercise revealed a sobering contrast between this military policy and the nation's capability to carry it out.

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<sup>15</sup> Ibid., 73.

<sup>16</sup> Ibid.

## The Problems

Admiral Thomas H. Moorer, Chairman of the Joint Chiefs of Staff, outlined the significance of transport in testimony to Congress in September 1971:

"Although transportation has varied from age to age from the discovery of the wheel to artificial satellites, it has never ceased to be a foundation of national power since the beginning of the nationhood. In time of peace, it has been vital to national production and economic welfare. In time of war, it has frequently been the determining factor of victory or defeat."<sup>17</sup> In addition to emphasizing the role that airlift and sealift serve in both the deployment and maintenance of combat units around the world, Admiral Moorer made a point of outlining the actual system the Joint Chiefs used to plan and allocate national transportation assets for worldwide contingencies.<sup>18</sup>

The United States had divided the world into five military regions, assigning a commander to each region. Those military leaders, known as unified commanders, were responsible for the protection of U.S. interests in their region, interests that were outlined for each commander in the nation's Joint Strategic Capabilities Plan. For example, the unified commander in charge of overseeing Central America in 1971 was responsible for counteracting threats against the

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<sup>17</sup> Congress, House of Representatives, Committee on Armed Services, Special Subcommittee on Transportation, Proposed Transfer of Military Sealift Command Functions to Military Traffic Management and Terminal Service, 92<sup>nd</sup> Cong., 1<sup>st</sup> sess., 20 September 1971, 6582. Hereafter this source document will be abbreviated in the following manner, Proposed Transfer.

<sup>18</sup> The system Admiral Thomas Moorer described in 1971 was still in place in 1978 during NIFTY NUGGET.

Panama Canal and safeguarding U.S. shipping between the Atlantic and Pacific oceans.

After reviewing his responsibilities as specified in the Joint Strategic Capabilities Plan, each unified commander in turn developed plans for how best to accomplish each assigned mission. Commanders strove to write plans that were detailed enough to be pulled off the shelf and executed in time of emergency. A critical portion of each plan was the list of units the unified commander could call up from the United States to support his operations. One can imagine that every unified commander sought ample allocations of both units and transportation assets; therefore, an important role of the Joint Chiefs was to prioritize and allocate scarce airlift and sealift capabilities from the perspective of overall needs. As Admiral Moorer explained, once the unified commanders submitted their area plans, "the Joint Chiefs of Staff are careful to make a detailed analysis of the overall airlift and sealift needs.... In cases where the requirements of the contingency plans exceed overall transportation capabilities, adjustments must be made to bring the two into line by accepting greater risks and establishing military priorities."<sup>19</sup> The end result was a mass of deployment data assigning a date for deployment to each unit selected, a point of embarkation, and a means of travel.<sup>20</sup>

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<sup>19</sup> Proposed Transfer, 6585.

<sup>20</sup> Ibid. A person familiar with military jargon will recognize that what is being referred to here are Operational Plans (OPLANS) and the supporting time-phased force and deployment data (TPFDD) file which is a part of each OPLAN.

Admiral Moorer's description of the Joint Chief's system for allocation of transportation assets revealed no reservations or doubts about the system as it stood. The Joint Chiefs of Staff would receive the subordinate plans, analyze the situation, and then allocate resources accordingly.<sup>21</sup> One wonders if Admiral Moorer would have been surprised by the numerous and significant problems NIFTY NUGGET revealed in the transportation system he had so succinctly described.

The detailed analysis of NIFTY NUGGET published by the Joint Staff after the exercise indicated that "prior to NIFTY NUGGET the Joint Staff had never gone further into the execution planning process for a major plan than plan development."<sup>22</sup> In other words, those plans which Admiral Moorer had described and which the United States counted on to direct operations during times of emergency or war had never been tested for feasibility. While it is virtually impossible to know if any plan will work exactly as one predicts, the act of testing provides an opportunity to observe its strengths and weaknesses.

A perfect example of just such a plan was the one developed for restoring democracy to Haiti in 1994. The original plan called for American soldiers to make a forced entry into Haiti. Indeed, units from the 82<sup>nd</sup> Airborne Division were

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<sup>21</sup> This function was carried out by the Joint Chiefs of Staff's Joint Transportation Board (JTB). This board was responsible for ensuring that the Department of Defense's common-user transportation resources were used in the most advantageous way. Needless to say the JTB was largely incapable of fulfilling that function.

<sup>22</sup> Nifty Nugget 78 (U), Section III – Deployment Processes, III-4.

already airborne and en route to Port au Prince when former President Jimmy Carter and General (Retired) Colin Powell, former Chairman of the Joint Chiefs of Staff, completed diplomatic negotiations precluding the need for the assault. The plan for Haiti demonstrated its flexibility by allowing military leaders to quickly recall the planes carrying thousands of combat-prepared soldiers just hours before entry. It demonstrated its feasibility when other soldiers, briefed on the current requirements, were instead deployed to Haiti and successfully accomplished the new and dramatically different mission of peace restoration.

The plans tested by the NIFTY NUGGET exercise, which were designed to defend North Atlantic Treaty Organization interests in Europe against attacks from the Warsaw Pact, lacked flexibility. The first order from the Joint Chiefs of Staff called for the sudden deployment of Rapid Reaction and Dual-Based forces to Europe. Since neither of those forces had been included in any of the plans' data for early deployment, transportation assets originally intended for other purposes had to be redirected.<sup>23</sup> That one decision, to move the Rapid Reaction and Dual-Based forces out of order, created a ripple that picked up speed and impact as it moved through the exercise.

To enact any change to the deployment schedule NIFTY NUGGET participants needed to clear two significant hurdles. First, the transportation

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<sup>23</sup> Ibid., III-3. Each TPFDD contains the movement data required to support a particular OPLAN. It details what units are to be deployed, their priority in the movement, when they will arrive at a port of debarkation, and what route they will take.

managers from each service, who were ultimately responsible for assigning their service's transportation assets, had to be informed of the new requirements, a task that proved to be more complicated than one might imagine. In this case, Army traffic managers received orders from the Operations Directorate, under the Office of the Joint Chiefs of Staff, to change the entire movement plan, while Air Force transportation managers were informed by a completely different office in the Joint Chiefs, the Logistics Directorate, that they could pick up bypassed units after the entire plan was executed, thus precluding any need to change the movement plan.<sup>24</sup> As an analysis published after the exercise indicated, "conflicting guidance from various staff agencies" created both "deployment problems" and confusion.<sup>25</sup> Senior officers from both the Army and the Air Force eventually had to come together face-to-face to resolve this particular problem; the Air Force changed the movement plan, but precious time was lost.<sup>26</sup>

The second significant hurdle was the physical implementation of the change to the movement plans. Every change had to be made manually by each service's transportation manager. Manual manipulation of the movement tables was necessary because software capable of changing the movement tables electronically had not yet been developed. Nonetheless, even if such software had existed and had been available to each service, manual changes in the deployment order still would have been required no less than four different times

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<sup>24</sup> Nifty Nugget 78 (U), Section III – Deployment Processes, III-8.

<sup>25</sup> Ibid., Executive Summary, EX-11.

<sup>26</sup> Ibid., Section III – Deployment Processes, III-8.

because each service was operating with incompatible logistical software. The fourth instance is accounted for by the Army, which, even within its own internal transportation management agency, had two incompatible systems of software. Consequently, each command that required a change to the deployment order forced the new data to navigate through this tangled scheme of four separate and incompatible systems.

Opportunities for human error lurked at every keyboard.<sup>27</sup> One example that illustrates the severity of the problem of manual data entry occurred between the Army and the Air Force. Before an Army unit flies out of country, it must adhere to a schedule of checkpoints. First, the unit has a "ready-to-load" date when vehicles and equipment are loaded onto trains or trucks to be taken to the air or seaports of embarkation. The unit's equipment must then reach the air or seaport of debarkation between an "earliest arrival date" and "latest arrival date" as assigned in the plan's deployment schedule.

While processing the deployment data for the exercise, Army transportation managers realized that the time planned between units' "ready-to-load" dates and their "latest arrival dates" at the ports of debarkation in the overseas theatre was too short to allow movement of their supplies and equipment over the required distances.<sup>28</sup> The latest arrival dates for the units falling into this category would have to be pushed back. Trying to resolve this problem, the transportation managers for the Army received permission from the

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<sup>27</sup> Ibid., Executive Summary, EX-10 and Section III – Deployment Processes, III-9-III-13.

<sup>28</sup> Ibid., Section III – Deployment Processes, III-10.



Joint Chiefs of Staff to make an adjustment to the latest arrival dates on the deployment plan. However, when they made these changes to the latest arrival dates they failed to adjust simultaneously the corresponding earliest arrival dates, thus creating inaccurate arrival windows for each unit.

When Air Force traffic managers took the Army's revised deployment data file and entered the data into their system, they based their new movement plan on those unchanged, and consequently incorrect, earliest arrival dates, rendering their database inaccurate as well. Had this discrepancy gone unnoticed, service members would have been transported by air, based on the Air Force's earliest arrival dates, while their unit-related equipment and supplies would have been transported by sea, based on the Army's latest arrival dates. The end result would have been soldiers arriving at their destinations long before their equipment.<sup>29</sup> As discussed in the introduction, the 1<sup>st</sup> Cavalry Division and the 9<sup>th</sup> Infantry Division were almost led into this situation.

The synchronization of soldier and equipment departure and arrival is absolutely vital to any deployment, yet NIFTY NUGGET indicated that the United States military was having severe difficulty accomplishing this task. The problems encountered in synchronization during the exercise were due largely to the fact that the transportation managers for each service were operating with incompatible systems and software.

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<sup>29</sup> Ibid., III-11.

While system incompatibility surely accounts for a significant portion of the deployment problems encountered during the exercise, it was not the cause for a second problem, the Air Force's bypass of soldiers and equipment from units deploying into the combat theatre. Instead, this problem arose when the Joint Staff called for four off-the-shelf plans to be executed in rapid succession.<sup>30</sup> One important piece of information that Admiral Moorer failed to mention about the Joint Strategic Capabilities Plan in his description to Congress was that the plan allowed a unified commander to use up to 90 percent of the nation's air and sealift assets for EACH of his contingency plans.<sup>31</sup> Therefore, it is easy to imagine that just about every contingency plan on the shelf intended on using 90 percent of the nation's common user transportation assets in its execution. Thus, when the Joint Staff called for four plans to be executed in succession significant shortages of airlift and sealift assets arose since each plan relied on the same pool of transportation assets.

One unfortunate result was that the new requirements for airlift oversubscribed MAC's [Military Airlift Command's] capabilities by 200-300 percent.<sup>32</sup> This critical shortage of assets drove the Air Force to leave "people and equipment behind at the air POE [point of embarkation] because they did not

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<sup>30</sup> The Joint Chiefs of Staff requested that the Commanders from European Command, Southern Command, Atlantic Command, and Pacific Command each execute a different OPLAN to assist in combating the threat that the United States and its NATO allies were facing from Warsaw Pact forces.

<sup>31</sup> Nifty Nugget 78 (U), Deployment Processes, III-2.

<sup>32</sup> Ibid., III-14.

constitute economic aircraft loads."<sup>33</sup> That decision to favor cargo in terms of bulk rather than operational importance "resulted in undermanned combat units deploying to an active combat theater at less than planned effectiveness."<sup>34</sup> Even this antiseptic prose quoted from the Joint Chiefs' post-exercise analysis report cannot disguise the implications of the Air Force's decision on the ultimate success or failure of the combat operations.<sup>35</sup> What was an armor commander to do if his tanks were held back because they did not constitute an economic aircraft load? What was to happen to equipment arriving at an airfield if the soldiers it belonged to were not there to receive it?

Somehow this competition among users needed to be resolved and ideally it would be resolved by identifying those units with priority based on warfighting requirements. Remarkably though, the Joint Staff had no way of fully comprehending the nation's overall transportation assets in a way that would allow it to make such informed decisions. This shortcoming stemmed from the simple fact that no manager or system existed within the nation's transportation system to track and compile the deployment data from all three services' transportation managers.

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<sup>33</sup> Ibid., III-24.

<sup>34</sup> Nifty Nugget 78 (U), Executive Summary, EX-11.

<sup>35</sup> Andrew E. Gibson and Captain William M. Calhoun, U.S. Navy, used the words "antiseptic prose" in their article "Barely in Time: The Successful Struggle to Create the Transportation Command," in *Naval War College Review* 43, no. 4 (autumn 1990): 72-80 to describe the verbiage in the Joint Staff's Detailed Analysis Report Exercise Nifty Nugget 78 (U).

Unfortunately, coordination problems were not limited to computer compatibility difficulties and asset shortages. Problems also occurred among the services' transportation managers over division of responsibility. As previously indicated in the introduction, under the "Single Manager Plan," responsibility for movement of cargo to ports of departure and the management of those ports was assigned to the Army, while the Navy was responsible for providing the vessels to transport the equipment overseas. As responsibility changed hands at the water's edge both at the port of embarkation and the port of debarkation, coordination problems between the two services at those points surfaced throughout NIFTY NUGGET. In particular, the Army and Navy experienced problems marrying up cargo at the ports with available shipping.<sup>36</sup> Empty ships should never have to wait to dock and receive cargo nor should full ships have to wait for a turn to unload, especially while in hostile territory. However, when proper coordination is not made between port operators and ships, that is exactly what occurs. Unfortunately, the Single Manager Assignments that the Navy and Army had been given in their 1967 charters from the Department of Defense made it difficult to determine who was responsible for affecting coordination between ship and port operations.<sup>37</sup>

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<sup>36</sup> Nifty Nugget 78: Remedial Action Projects (RAPs) (U), dated 2 October 1980, prepared by: The Joint Chiefs of Staff, TCRC.

<sup>37</sup> DoD Directive 5160.10, Subject: Single Manager Assignment for Sealift, dated March 24, 1967 and DoD Directive 5160.53, Subject: Single Manager Assignment for Military Traffic, Land Transportation, and Common-User Ocean Terminals, dated March 24, 1967.

The post-exercise analysis report for NIFTY NUGGET indicates that the Army's transportation management agency directed ship operations on at least two occasions. Through the analysis report, one can infer that the decision makers for the agency most likely based their decisions on their understanding of the congestion and stagnation occurring at the ports and their desire to prevent shipping delays. Regardless, on both occasions, participants from the Navy's transportation management agency perceived the Army's transportation managers "as overstepping" their "bounds or exceeding" their charter.<sup>38</sup> The first "infraction" occurred when the Army's managers "announced several vessel and port changes...without prior coordination" with the Navy managers.<sup>39</sup> The second occurred when Army managers recommended that a ship loaded with elements from an infantry division pass through the Panama Canal, rather than around South America's Cape Horn. After the first "incident" the Navy's transportation agency published a message in which it "explained" to the Army that the Navy was "responsible for ship movement and emphasized [its] ship operation responsibilities."<sup>40</sup> After the second incident the Navy published an additional message again informing the Army that ship operations were its responsibility.<sup>41</sup> The antiseptic prose in the Joint Staff post-exercise analysis report cannot hide

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<sup>38</sup> Nifty Nugget 78 (U), Section III – Deployment Processes, III-15.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid., III-16.

the frustration Navy leaders must have felt.<sup>42</sup> One can almost see a red-faced navy admiral declaring, "No army general is going to tell my ships where to go!" Clearly the messages from the Navy indicate a problem more serious than hurt feelings. This split of the transportation system at water's edge was a dilemma that, if left unsolved, would likely lead to more significant problems in the future.

One of the most egregious flaws uncovered during NIFTY NUGGET was a complete misuse of scarce movement assets by the services because no overarching authority existed to prioritize and coordinate the activities of their transportation managers. Although the Joint Staff had the overall responsibility to the Secretary of Defense for the deployment of forces, planning responsibilities were fragmented among several major headquarters.<sup>43</sup> The Commander in Chief Atlantic (Navy), the Commander in Chief, Military Airlift Command (Air Force), and the Commander in Chief, US Readiness Command (Army), each developed his own plan for deploying his service's forces.<sup>44</sup> Not surprisingly these commanders made special claims on their own service's transportation assets and favored the movement of their own resources over another's. No honest broker existed to ensure the Joint Staff's priorities were understood and executed. This parochial way of doing business "often resulted

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<sup>42</sup> Gibson and Calhoun, "Barely in Time," Naval War College Review, 72-80.

<sup>43</sup> Nifty Nugget 78 (U), Section III – Deployment Processes, III-4.

<sup>44</sup> Ibid., III-4 and III-7.

in the misuse of scarce movement assets during time-sensitive periods when recovery was not possible."<sup>45</sup>

In the end, each deployment management problem outlined above stemmed from a single root cause – the absence of an overall manager for mobilization deployment planning. This conclusion was not lost on the Senior Observer Group evaluating the exercise. Very early in the exercise they recommended to the Chairman of the Joint Chiefs of Staff, General David C. Jones, that he "designate one headquarters or agency responsible for all deployments."<sup>46</sup> The observers advised the Chairman that such an agency should be responsible for managing all overseas movements, maintaining the database that supports such movements, and coordinating deployment activities between the Joint Staff, commands, and the services' separate transportation managers.<sup>47</sup>

Ideally, the recommended agency would alleviate the problems this chapter has identified from the NIFTY NUGGET exercise. First, the agency could serve as the sole source of timely and accurate information for each service transportation manager, thus eliminating the types of errors that arose

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<sup>45</sup> Nifty Nugget 78 (U), Executive Summary, EX-11.

<sup>46</sup> Ibid., Section III – Deployment Processes, III-9.

<sup>47</sup> Ibid.

when the Air Force manager received inaccurate information from the Logistics Directorate, Office of the Joint Chiefs of Staff, regarding the deployment data change. Second, the agency could build and maintain a database common to all the transportation management agencies. When deployment data needed to be changed, one computer operator could accomplish the change at a single terminal and greatly reduce the opportunity for human error, such as the failed adjustment of the earliest arrival dates data. Third, by having the capability to see and track all defense transportation assets, this agency could ensure that every asset was utilized efficiently and perhaps even optimally. Complete asset visibility would enable the agency to manifest efficient loads while transporting the critical equipment and soldiers needed by commanders to accomplish their missions. Furthermore, complete asset visibility would enable the agency to make sound decisions regarding shipping routes for equipment and times to arrive at port, thereby eliminating the coordination problems that the Navy and the Army transportation managers had experienced. Last, but certainly not least, this agency could ensure that the defense transportation system was prepared to support Joint Staff objectives. General Jones agreed with the Senior Observer Group's recommendation and pinned the responsibility for developing the terms of reference for this new agency on General John J. Hennessey, Commander of United States Readiness Command.<sup>48</sup>

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<sup>48</sup> Ibid.



NIFTY NUGGET demonstrated that the transportation system the Joint Chiefs of Staff were relying upon could not support the nation's one-and-one-half war strategy, which called for the armed services to execute numerous contingency plans at the same time. The one-and-one-half war strategy demanded a flexible military transportation system. By the strategy's very design, the nation's military leaders might have to execute any number of the plans available on the shelf to respond to contingency operations and war. The leaders on the Joint Chiefs of Staff fighting under this strategy needed a transportation system responsive to rapid changes brought on by priorities that could shift at any time. Unfortunately, that type of adaptability proved to be unattainable during NIFTY NUGGET. The culprit seemed to be the manner in which the transportation system was organized, commanded and controlled under the "Single Manager Plan". The Joint Chiefs recognized these shortcomings and immediately set out to fix the problem.

### **The Solution**

Just two weeks after the NIFTY NUGGET exercise, the Joint Chiefs of Staff struck out in a new and uncomfortable direction in an attempt to resolve the problems identified in their military transportation system during the simulation. On 17 November 1978, a "Major Issues Working Group" held its first meeting. Its task was to review the problems revealed by NIFTY NUGGET and assign

primary responsibility to different offices within the Joint Chiefs of Staff.<sup>49</sup> Eleven different "Remedial Action Projects (RAPs)" were identified.<sup>50</sup> Since the remedial action projects listed on the group's report were identified only by number rather than by title there is no way of knowing what specific problems the projects addressed. Fortunately, the Joint Chiefs of Staff published an extremely detailed document a little less than a year later, in October 1980. That document details and updates the status of 487 remedial action projects resulting from NIFTY NUGGET, quite a significant increase from the 11 original projects.<sup>51</sup> Apparently, almost an entire year had been necessary to collect the lessons learned from all the different players involved in the exercise.

Among those 487 projects is a remedial action project titled "Single Manager, Mobilization Deployment Planning." It states simply that "there is a need for a single manager for mobilization deployment planning."<sup>52</sup> The project noted that current plans dedicated forces to each unified commander's contingency plans; "however, during execution, forces are frequently changed to satisfy" the requirements of many unified commanders simultaneously "as well as

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<sup>49</sup> Joint Chiefs of Staff memorandum DJSM-1866-78, dated 22 November 1978, sent to Director for Intelligence, Director for Operations, Director for Logistics, and Director for Plans and Policy, Subject: Exercise NIFTY NUGGET 78 Major Issues Working Group, TCRC. It should be noted that not all 487 of the remedial action projects dealt with transportation issues. Included in those projects were all the problems identified during the exercise, which included everything from ammunition serviceability problems to medical care shortfalls.

<sup>50</sup> Ibid.

<sup>51</sup> Nifty Nugget 78: Remedial Action Projects (RAPs) (U), dated 2 October 1980, prepared by Joint Chiefs of Staff, TCRC.

<sup>52</sup> Ibid.

tailored objectives within one supported commander's area of responsibility."<sup>53</sup>

Problems arose because the Department of Defense did not have a single manager with overall "responsibility for deployment planning" and the "capability to re-flow movement requirements in a timely, efficient manner."<sup>54</sup>

Remarkably, a first version of the new terms for an agency to serve as the single manager for deployment planning was forwarded to the Joint Chiefs of Staff by 17 November 1978, just 17 days after the conclusion of the NIFTY NUGGET exercise. This seems to indicate that General John J. Hennessey, Commander of the United States Readiness Command, who had been assigned the task of overseeing the creation of this new agency by General David C. Jones, Chairman of the Joint Chiefs of Staff, during NIFTY NUGGET must have had the new agency under design even before the Major Issues Working Group met for the first time.<sup>55</sup> General Hennessey's United States Readiness Command was a natural selection for General Jones because among unified commands it was the one that had the most experience with deployments. Readiness Command exercised operational command over all US Army and US Air Force combatant forces in the United States not assigned to other unified or specified commands. Its primary mission was to have those forces prepared to reinforce

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<sup>53</sup> Ibid.

<sup>54</sup> Ibid. Re-flow is military jargon for the word 'change'.

<sup>55</sup> Nifty Nugget 78 (U), Section III – Deployment Processes, III-9. Note today the United States Readiness Command is known as United States Forces Command.

the other unified and specified commands around the world; therefore, an important responsibility of the command was to plan for deploying those forces.<sup>56</sup>

General Hennessey's final plan for the new agency incorporated general recommendations from each service's transportation management agency and comments from the supported unified and specified commanders. By 27 March 1979, the Joint Chiefs of Staff had approved the terms creating the Joint Deployment Agency and on 1 May 1979, the organization was officially established.<sup>57</sup> Its mission was to serve as the Joint Chiefs' coordinating authority for mobilization deployment planning.<sup>58</sup>

The Joint Deployment Agency was located at MacDill Air Force Base in Florida along with the United States Readiness Command. Its initial terms authorized a total of 246 members: 107 officers, 95 enlisted soldiers, and 44 civilians. Service members from the Army, Navy, Air Force, and Marine Corps

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<sup>56</sup> In July 1978, the "Report to the Secretary of Defense on the National Military Command Structure" was published. In September 1977, President Jimmy Carter had requested that the Secretary of Defense conduct a review of the National Military Command Structure. That study recommended that the United States Readiness Command "be designated as the focal point for the coordination of the day-to-day aspects of mobilization/deployment planning of all CINCs, particularly as they pertain to lift requirements and detailed follow-through during major reinforcements." The National Military Command Structure: Report of a Study Requested by the President and conducted in the Department of Defense, (Washington D.C.: Government Printing Office, 1978), 20-21. This fact may have also contributed to General Jones's decision to assign this new responsibility to the United States Readiness Command.

<sup>57</sup> Joint Deployment Agency History (U) 1979, 1, TCRC.

<sup>58</sup> Ibid. The organization's official history explains that "the term 'mobilization deployment planning' means the act of using authorized systems and measures for planning, coordinating, and monitoring movements and deployments of mobilized forces and material necessary to meet military objectives."

were assigned positions within the agency. Out of those 246 members 110 also held jobs in the United States Readiness Command.<sup>59</sup> Personnel who fill two different positions are what the services referred to as "dual-hatted". The dual-hatting of these positions should not be taken as a slight to the importance of the organization; in a resource-constrained environment like the military it is a common practice.

The organization's mission statement contained nine different points; only the three that pertain to the specific problems focused on in this paper will be discussed. First, the agency was given the mission of coordinating "supporting agency response to changes to the forces and transportation requirements of supported commanders."<sup>60</sup> This would allow the agency to serve as the point of contact for the services' transportation managers regarding changes in plan execution and should eliminate the problems encountered during NIFTY NUGGET when conflicting information was received from different sources within the Joint Chiefs of Staff. The next two missions went hand-in-hand; the agency was assigned the task of maintaining the "capability to coordinate movements and deployments when multiple OPLANs [Operational Plans] are implemented" and "provide information to facilitate required decision making" as well as the task of maintaining "the capability to coordinate adjustments to movement plans

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<sup>59</sup> Ibid., Appendix B, B-1.

<sup>60</sup> Ibid., Appendix A, A-1.

as courses of action change as directed by the JCS/supported commander."<sup>61</sup>

These last two points indicate that the Joint Chiefs expected the agency to add flexibility to their transportation system by ascertaining what movement plan changes would interfere with other plans and by ensuring that those adjustments were made quickly by the services' transportation managers. Thus, the agency should help to eliminate situations in which the Military Airlift Command finds itself over-tasked by 200-300 percent. Furthermore, it should be able to advise the Military Airlift Command regarding what loads were a priority for the Joint Chiefs of Staff and the supported commander on the ground.

Developing the Joint Deployment Agency moved the Joint Staff in a new and uncomfortable direction. It was unprecedented for combatant forces to be placed under the direction of an agency and not a command.<sup>62</sup> The military chain of command ran from the President to the Secretary of Defense to the unified and specified commanders. Neither the military departments nor the Joint Chiefs of Staff were included in that chain of command. The military departments were responsible for training and supplying the soldiers, sailors, airmen, and marines who were assigned to the unified and specified commanders, while the Joint Chiefs of Staff served as military staff and advisors to the Secretary of Defense. Therefore, it is not surprising that the initial terms developed for the Joint

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<sup>61</sup> Ibid.

<sup>62</sup> Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, Appendix to JCSM-264-77, 33, file 32-A-3-A, RG 32, TCRC.

Deployment Agency made it only a coordinating authority. Nevertheless, this was a big first step, and just as dual-hatted positions should not be seen as a slight to the agency's importance, the Joint Deployment Agency's initial designation as a coordinating authority should not be seen as a slight.<sup>63</sup> Military leaders had taken their first step in an uncharted direction by inserting this new agency into their organizational system.

The primary reason for looking at the Joint Deployment Agency's formation is to see how the Joint Chiefs came to conceptualize their transportation problems with the benefit of simulation and the new directions they were willing to move in to solve those problems. Thanks to the computer simulation exercise NIFTY NUGGET, General Jones and the other members of the Joint Chiefs of Staff were able to identify 487 deficiencies that needed to be corrected in the nation's system of mobilization and deployment for warfare or emergency operations. While not all of those deficiencies were related to the transportation system, those that did were identified as significant problems.

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<sup>63</sup> Joint Deployment Agency History (U) 1981, Vol. II, TCRC. In October 1981 the agency was given new terms increasing its power and authority.

## CHAPTER 3

### WHY STATUS QUO IN 1977?

The logic and simplicity of the reforms the Joint Chiefs of Staff implemented in 1979 begs the question: why was such an agency not created earlier? As it turns out the Joint Chiefs had considered just such an agency in June of 1977, a mere 15 months before the start of NIFTY NUGGET. At that time, however, the Chiefs selected to maintain the status quo, concluding that, "no major deficiencies were identified within the current peacetime and wartime" transportation structure of command and control and "no further organizational realignments...should be undertaken."<sup>1</sup>

Why did the military leaders serving on the Joint Chiefs of Staff, who were responsible for ensuring that the nation's armed forces were prepared to deploy around the world, decide in 1977 to keep a military transportation system which proved to be so flawed in 1978? This chapter looks at how the Joint Chiefs assessed both their current transportation system, which they chose to retain, and how they assessed a study alternative, which if selected would have created an agency akin to the Joint Deployment Agency. The Joint Chiefs' justification for why their current transportation system was preferable over the other study alternative provides a clear contrast between how they conceptualized these issues with and without the benefit of simulation.

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<sup>1</sup> Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, 12.



The purpose of the Joint Chiefs' 1977 study was to analyze alternative methods for command and control over the services' transportation managers. A cover memorandum from the Joint Chiefs to the Secretary of Defense submitted with the study's results explained that the goal of the study was "to identify and evaluate alternatives which would insure responsiveness to direction by the NCA [National Command Authority] in times of crisis/war and compatible peacetime economies in procurement, management, and resource utilization."<sup>2</sup> It further specified that the Joint Staff had analyzed ten alternatives, each in terms of its "responsiveness to unified direction, command relationships, economy and efficiencies, operating procedures, Service requirements, funding, and legality."<sup>3</sup> Nevertheless, the Joint Chiefs specifically pointed out in their memorandum that, "crisis and wartime responsiveness to the NCA was the primary criterion" used in their evaluation process and that "compatible peacetime economies were a secondary criterion."<sup>4</sup>

While that may have been their intent, in actuality considerations of command relationships, economy and efficiency, operating procedures, funding, and legality overrode considerations of responsiveness to unified direction. Favoring the former bureaucratic considerations over warfighting considerations

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<sup>2</sup> Joint Chiefs of Staff memorandum JCSM-264-77, dated 15 June 1977, sent to the Secretary of Defense, Subject: Transportation Operating Agency Organization Alternatives, 1, file 32-A-3-A, RG 32, TCRC.

<sup>3</sup> Ibid., 1.

<sup>4</sup> Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, 2, file 32-A-3-A, RG 32, TCRC.

ultimately resulted in the Joint Chiefs choosing to maintain their current transportation system, a system that failed to achieve the responsiveness to National Command Authority that was so desperately needed during NIFTY NUGGET.

### **Interrogating the Source**

This study relies primarily on one source document, the Joint Chiefs' published study results.<sup>5</sup> Since so many conclusions are drawn from this single source it seems appropriate to take a moment to interrogate it to determine whether or not it is likely to be speaking the truth. An initial criticism that can be lodged against the document is its relative silence regarding several issues. While it states that the study is part of a larger study being conducted by the Senate Appropriations Committee it never explains what that larger study was; many questions arise as a result.<sup>6</sup> Were the Joint Chiefs of Staff expected to come back with certain results, as is often the case in government studies? Furthermore, one is told only that, "under the auspices of the Director for Logistics, OJCS, an analysis group was formed" and that the analysis group consisted of representatives from the services, the services' transportation

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<sup>5</sup> See Joint Chiefs of Staff memorandum JCSM-264-77, dated 15 June 1977, sent to the Secretary of Defense, Subject: Transportation Operating Agency Organization Alternatives, file 32-A-3-A, RG 32, TCRC and Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, Appendix to JCSM-264-77, file 32-A-3-A, RG 32, TCRC.

<sup>6</sup> Joint Chiefs of Staff memorandum JCSM-264-77, 1.

management agencies, and the Joint Staff.<sup>7</sup> It never specifies who these representatives were. Did the Joint Chiefs take this study seriously and demand that each group send top individuals, or did they see it as just another bureaucratic box to check and have lower level members from the different agencies conduct the study? These are only a few of the many questions left unanswered. Finally, the document proves to be typical of many produced by military organizations; the wording is vague and the discussion in passive voice makes it almost impossible to assign responsibility to any particular player.

Other materials located in the United States Transportation Command research center's archives suggest that on a periodic basis leaders either from Congress or the Office of the Secretary of Defense attempted to exert influence over the way in which the military transportation system was organized.<sup>8</sup> The Joint Chiefs varied their response to those influences contingent upon who did the directing, what change was directed, and what the Joint Chiefs thought of the idea. If the change was coming from the Office of the Secretary of Defense and the Joint Chiefs found it disagreeable, their typical recourse was to request that Congress step in and serve as an arbitrator and make the final decision.

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<sup>7</sup> Ibid., Appendix 1-1.

<sup>8</sup> Department of Defense influence is generally found in memorandums sent from Department of Defense officials to the Joint Chiefs of Staff or other service representatives, while Congressional influence is best seen in their decisions made during yearly appropriation hearings. On several occasions Congress prevented the Department of Defense from making changes in the transportation system by simply not appropriating the funds required to implement such changes. At times Congress also conducted studies of the Defense transportation system either with its own members or directed that such studies be conducted by outside agencies. Following such studies Congress generally requested that specific changes be implemented.

However, if the change was coming from Congressional leaders themselves and the Joint Chiefs disagreed, their only recourse was to try to obtain support for their views from the leadership in the Office of the Secretary of Defense in hopes that those leaders could convince Congress to follow the Joint Chiefs advice.

The testimony from Admiral Moorer, in the first chapter of this work, came from an instance when Congress stepped in to arbitrate between leaders in the Office of the Secretary of Defense and leaders on the Joint Chiefs of Staff. The specific issue on the table in the fall of 1971 was the Department of Defense's recent proposal to transfer several traffic management functions from the Navy to the Army. Specifically, the Army was to become the single traffic manager for surface transportation everywhere except outside the United States. This transfer meant that a soldier rather than a sailor, or more accurately a Department of the Army civilian rather than a Department of the Navy civilian, would coordinate the shipping contracts for moving cargo overseas. Historically any questions surrounding military transportation attracted controversy and heated debate; so it was peculiar that the Department of Defense sent a memorandum directing this change without first consulting either Congress or the Joint Chiefs of Staff.<sup>9</sup> Congressman F. Edward Hebert, of the House Armed

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<sup>9</sup> Deputy Secretary of Defense memorandum, dated 24 February 1971, sent to The Secretaries of the Military Departments and The Chairman, Joint Chiefs of Staff, Subject: Functional Responsibilities of the Military Sealift Command (MSC) and the Military Traffic Management and Terminal Service (MTMTS), file 32-A-2-A, RG 32, TCRC. Note the Military Traffic Management and Terminal Service was redesignated as the Military Traffic Management Command on 31 July 1974. According to the command's history this change was made to have its title more readily identifiable with its mission and to make its title more similar to the other

Services Committee, quickly established a subcommittee for transportation and assigned it the immediate task of getting to the bottom of this proposed transfer. The committee was officially formed on 27 July 1971 and began hearings on the issue on 13 September 1971.<sup>10</sup>

Congressman Alton Asa Lennon, a Democrat from North Carolina, was selected to head the committee. He seemed a natural choice since he was the only Congressman who had positions on both the Armed Services Committee and the Merchant Marine and Fisheries Committee. Additionally, contained within his district were an ocean terminal that handled more than 55 percent of allocation cargo moving out of the continental United States, as well as a substantial Army base.<sup>11</sup> Congressman Lennon and the other eleven Congressional leaders serving on the special subcommittee conducted seven days of hearings. In the course of those hearings, they heard testimony from all three service chiefs.<sup>12</sup>

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services' transportation managers. See Historical Background: Military Traffic Management Command, Washington D.C., 6 December 1985, 1, TCRC.

<sup>10</sup> Congress, House of Representatives, Committee on Armed Services, Special Subcommittee on Transportation, Proposed Transfer of Military Sealift Command Functions to Military Traffic Management and Terminal Service, 92<sup>nd</sup> Cong., 1<sup>st</sup> sess., 20 September 1971.

<sup>11</sup> Ibid., 6687.

<sup>12</sup> The committee also heard testimony from the Commander of the Military Sealift Command, Commander of the Military Traffic Management and Terminal Service, representatives from the Military Airlift Command, the Assistant Secretary of Commerce for Maritime Affairs, the Assistant Secretary of Defense for Installations and Logistics, the Chairman of the Federal Maritime Commission, and the Special Assistant to the Assistant Secretary of Commerce for Maritime Affairs.

With the exception of the Chief of Staff of the Army, General William C. Westmoreland, each leader felt that the Department of Defense's plan to transfer traffic management functions from the Navy to the Army was likely to have an adverse affect on the nation's ability to conduct contingency operations. It is unnecessary here to explain the points raised by Admiral Elmo R. Zumwalt, Chief of Naval Operations, and Admiral Thomas H. Moorer, Chairman of the Joint Chiefs of Staff, to support their argument against the transfer. The important point to be made is that military leaders on the Joint Staff were able to persuade Congressional leaders to side with them and stop the Secretary of Defense's transfer plans from going forward.

An example of the opposite occurred in 1981 when Congressional leaders attempted to direct change but were persuaded to change their mind by a united front presented by leaders from the Office of the Secretary of Defense and the Joint Chiefs of Staff. The story starts in January 1980, when the Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) contracted the Harbridge House, an independent think tank, to examine the functional and organizational relationships of the services' transportation management agencies.<sup>13</sup> The Harbridge House was directed to determine the

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<sup>13</sup> The House/Senate Conference Committee as part of its Fiscal Year 1980 Department of Defense Appropriations Bill had directed that the Department of Defense develop an implementation plan for the creation of a Defense Transportation Management Agency in Fiscal Year 1980. The Department of Defense requested time to analyze other alternatives before a final decision was made. The Harbridge House study was contracted as part of that additional analysis.

most "responsive, efficient, and cost-effective approach for management of the Department of Defense" transportation resources.<sup>14</sup> In September 1980, the Harbridge House finished its study and concluded that a Unified Traffic Management Command (UTMC) was the best choice among all that they had examined.<sup>15</sup> In December 1980, the House/Senate Conference Committee as part of the Fiscal Year 1981 Department of Defense Appropriations Bill required that the Department of Defense submit, by 1 May 1981, a plan for the creation of either a Unified Military Traffic Management Command or a Military Traffic Management Agency.<sup>16</sup>

A series of memorandums indicates that the Joint Chiefs of Staff, who preferred strengthening the Joint Deployment Agency rather than creating a Unified Military Traffic Management Command or a new Military Traffic Management Agency, managed to obtain support for their views from the Office of the Secretary of Defense. The archives for the United States Transportation Command contains a draft of an initial tasking memorandum which was to be

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<sup>14</sup> There are several documents covering the back and forth discussion between the Office of the Secretary of the Defense and the Harbridge House in the United States Transportation Command research center archives. Those letters are located in file 32-A-6-B, RG 32. This particular quote is taken from a letter the Chairman of the Harbridge House, Charles D. Baker, sent to Mr. Paul H. Riley, Deputy Assistant Secretary for Supply, Maintenance and Services, dated 6 December 1979. The purpose of that letter was to amend the scope of the Harbridge House's original study proposal.

<sup>15</sup> Harbridge House, *A Study of DoD Organization for Transportation and Traffic Management*, (Boston, MA: Harbridge House, 1980), I-12, file 32.A-6-A, RG 32, TCRC.

<sup>16</sup> See Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics) memorandum, dated 5 January 1981, sent to Director, Joint Staff, Subject: Transportation and Traffic Management, file 32-A-8-A, RG 32, TCRC; and, James K. Matthews and Cora Holt, *So Many, So Much, So Far, So Fast: United States Transportation Command and Strategic Deployment for Operation Desert Shield/Desert Storm*, (Washington D.C.: Office of the Chairman of the Joint Chiefs of Staff and the United States Transportation Command, 1996), 237.

sent from the Deputy Secretary of Defense, Frank C. Carlucci, to the Joint Chiefs of Staff. The draft as it was prepared directed the "Joint Chiefs of Staff to lead a joint-Service task group for the purpose of developing...an implementation plan to establish a joint deployment and traffic management agency."<sup>17</sup> It appears that the Joint Chiefs were afforded the opportunity to weigh-in on the matter before the final tasking was published because a later memorandum, sent from Carlucci to the Chairman of the Joint Chiefs of Staff, indicates that "after our discussion on May 14, my staff has redrafted the tasking memorandum to provide you with more latitude in considering those changes required."<sup>18</sup> Thus, the final tasking memorandum sent from Carlucci to the Joint Chiefs read, "the Joint Chiefs of Staff will be responsible for assembling and leading a joint Service task group to develop...an implementation plan for strengthening the Joint Deployment Agency."<sup>19</sup> In this instance the Joint Chiefs and the Office of the Secretary of Defense worked together, presented a unified front to Congress, and in the end persuaded Congressional leaders to accept their idea to strengthen the Joint

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<sup>17</sup> Draft memorandum prepared by the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) for The Deputy Secretary of Defense's signature and staffed to the Director, J-4 Office of the Joint Chiefs of Staff, Subject: Realignment of Transportation and Traffic Management Functions. The memorandum attached to the proposed draft was dated 15 April 1981.

<sup>18</sup> Deputy Secretary of Defense memorandum, dated 28 May 1981, sent to Secretaries of the Military Departments and Chairman of the Joint Chiefs of Staff, Subject: Realignment of Transportation and Traffic Management Functions, file 32-A-8-A, RG 32, TCRC.

<sup>19</sup> Deputy Secretary of Defense memorandum, dated 13 June 1981, sent to Secretaries of the Military Departments, Chairman of the Joint Chiefs of Staff, Assistant Secretary of Defense (MRA&L), Subject: Realignment of Transportation and Traffic Management Functions, file 32-A-8-A, RG 32.



Deployment Agency rather than establish a Unified Military Traffic Management Command.

These two examples show not only that leaders on the Joint Chiefs of Staff do encounter pressure from both the Office of the Secretary of Defense and Congress, but also in what form that pressure generally comes. Knowing this makes it much easier to search for evidence of such pressure on the Joint Chiefs of Staff in 1977. As it turns out, in the 1977 case, strong evidence exists to indicate that in all likelihood the Joint Chiefs' study conclusions were not skewed to please leaders from the Office of the Secretary of Defense. Instead, quite the opposite seems true.

A memorandum sent from William W. Kinhead of the Office of the Assistant Secretary of Defense to Mr. Paul H. Riley, Deputy Assistant Secretary of Defense (Supply, Maintenance, and Services), indicates that the Office of the Secretary of Defense and the Joint Chiefs of Staff were not seeing eye-to-eye on the issue of command and control of the services' transportation managers in 1977. The memorandum, labeled "CLOSE HOLD," states that, "this is an internal staff paper prepared prior to decision-making. It contains opinions, advice, and recommendations. It is not for public release and is not subject to release under the Freedom of Information Act (Exemption 5) nor to discovery during litigation."<sup>20</sup>

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<sup>20</sup> Office of the Assistant Secretary of Defense memorandum, undated, sent to Mr. Riley, Subject: Rationalization and Coordination of Traffic Management Operations – Planning Concept,

The essence of the memorandum was that Mr. Kinkead, and one might easily assume other leaders in the Office of the Assistant Secretary of Defense, were not satisfied with the Joint Chiefs' decision to maintain the status quo. Kinkead indicated that the only way for change to occur in the command and control system of the services' transportation managers was "to provide as factual a basis as possible to prove (both economically and politically) that any changes will reduce waste and create greater efficiencies."<sup>21</sup> Additionally, he added that the best way to provide such proof was to have "an unbiased, thoroughly briefed, independent, private contractor."<sup>22</sup> He concluded the memorandum with a list of milestones for this process.

From this exchange one can infer that the Joint Chiefs' selection of status quo, following their 1977 study, was not a popular decision in the Office of the Secretary of Defense; thus, it seems unlikely that they had "cooked" their study results to please the Office of the Secretary of Defense. Instead, the Kinkead memorandum seems to indicate that, at least in his mind, the Joint Chiefs of

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1, file 32-A-4-A, RG 32, TCRC. From the information the memorandum contains and other dates listed in the body of the memorandum it appears to have been written in mid-1977.

<sup>21</sup> Ibid., 2.

<sup>22</sup> Ibid., 2. One should remember that the Office of the Secretary of Defense had tried to make changes in the command and control structure in 1971 and had their efforts stopped by Congress which stepped in to support the majority of the service chiefs who were against the idea. It seems that the Office of the Secretary of Defense learned from their earlier mistakes and wanted to ensure they had more force behind their arguments for the next time.

Staff, by failing to use objective data, had skewed their study results so that they could arrive at a foregone conclusion.<sup>23</sup>

Additionally, there is no evidence that the Joint Chiefs tailored their study results to please Congressional leaders. Unfortunately, this study has not located a piece of evidence as strong as the Kinhead memorandum to support this claim; nevertheless, it does not seem unreasonable to assume that the Senate Appropriations Committee which requested the study did not do so simply to learn that everything was fine and no changes were required. Generally when a Senate Appropriations Committee directs a study it is because committee members believe problems exist. Such studies are intended to identify those problems and recommend solutions. Thus, it seems unlikely that the Joint Chiefs were pressured by the Congressional leaders to respond that the current system should be maintained.

In the absence of evidence indicating Congressional or OSD influence over the Joint Chiefs' 1977 study it seems reasonable to assign them with total responsibility for conclusions drawn. Was the Joint Chiefs' decision to maintain the status quo in 1977 based upon what they sincerely believed was best for national security, or might the decision have been based upon a desire to satisfy

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<sup>23</sup> It should be noted that it is unlikely that Mr. Kinhead was approaching the issues surrounding transportation management from a standpoint of what would be best in times of crisis or war. He was a government bureaucrat no doubt interested in finding a system that would be the most efficient and economical during day-to-day operations. Of course when the Joint Chiefs of Staff approached the topic of transportation management they had to try to reconcile both requirements, peacetime operating efficiencies and wartime readiness.

internal political objectives? Both questions are investigated in greater detail in this chapter, but first it is necessary to look at the Joint Chiefs' conclusions in 1977?

### **1977 Conclusions**

In the Joint Chiefs' 1977 study, ten alternative transportation management systems were considered and weighed based on their relative advantages or disadvantages when judged against seven criteria: responsiveness to unified direction, command relationships, economy and efficiencies, operating procedures, service requirements, funding, and legality. The first concern here is to study the alternative that the Joint Chiefs selected, while the second is to inquire into what faults the Joint Chiefs found in the alternative that would have created a transportation agency akin to the Joint Deployment Agency.

The Joint Chiefs selected the study alternative advocating continuance of the current system. Under that system the Air Force's transportation management agency, the Military Airlift Command (MAC), was a specified command while the other two services' transportation agencies, the Navy's Military Sealift Command and the Army's Military Traffic Management Command, received direction from their respective services (see appendix C). The Military Airlift Command had been designated a specified command on 1 February 1977. That designation took the agency out from under the command and control of the

Secretary of the Air Force and placed it directly under control of the Joint Chiefs of Staff during war. This command relationship enabled it to operate and plan airlift matters directly with the other unified commanders.<sup>24</sup> While that arrangement protected the Military Airlift Command from receiving guidance from multiple channels, the other two service's transportation managers were still subject to receiving direction from both their individual services and from the Joint Chiefs of Staff. It was this system, in which each service's transportation manager received guidance from different sources that ultimately produced many of the problems encountered during NIFTY NUGGET.

According to the Joint Staff report, the Military Airlift Command was accorded its special command relationship because it controlled significant "forces in peacetime as well as wartime," while the Army and Navy's transportation managers were viewed basically as "managers of contractor assets."<sup>25</sup> The report argued that airlift was more likely to be required on short notice for contingencies and crises than surface lift, the movements by trucks and rail contracted by the Army and by ships contracted by the Navy.<sup>26</sup> Nonetheless, the evaluators did note that sealift carried 90 percent of the supplies delivered to US forces in both the Korean and Vietnam Wars. Furthermore, although Army and Navy transportation managers relied on

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<sup>24</sup> Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, 15.

<sup>25</sup> Ibid., 11.

<sup>26</sup> Ibid.

contracting civilian assets for movements, they still played a large role in the success of transportation of soldiers and equipment. After all, it was the Army that was ultimately responsible for the arrival of all soldiers and equipment at the air or sea point of embarkation as well as the operations of both the stateside seaports of embarkation and the overseas ports of debarkation.<sup>27</sup> Therefore, it seems somewhat surprising that the Army and Navy were not provided with the same command relationships as the Air Force.

Interestingly, the Joint Chiefs did note in their findings that the one disadvantage of selecting to maintain the status quo was that it did not enhance responsiveness of the Military Traffic Management Command (Army) or the Military Service Command (Navy) to unified direction or coordination.<sup>28</sup> Since the purpose of the study was to identify a system of command and control that would ensure responsiveness to the direction of the National Command Authority over the services' transportation managers, one might imagine that this disadvantage would weigh very heavily against maintaining the status quo. Yet it did not. The Joint Chiefs reconciled this conflict by explaining, in a memorandum to the Secretary of Defense, that while responsiveness to the NCA might be improved by establishing a direct organizational relationship to the Joint Chiefs of Staff, no major deficiencies had been uncovered in the current organizational structure to

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<sup>27</sup> Ibid.

<sup>28</sup> Ibid., 15.

warrant such realignment. Reasoning further that "unless an in-depth cost-benefit analysis indicates significant projected long-range saving" no further organizational realignments needed to be undertaken.<sup>29</sup>

Awareness of the significant problems that occurred a mere fifteen months later during NIFTY NUGGET makes it difficult to objectively evaluate the Joint Chiefs' decision to maintain the status quo. Nonetheless, the following points can be made. There is little question that the Joint Chiefs believed that the military transportation system needed to be responsive to the NCA. They emphasize that point numerous times throughout their 1977 study results. However, there is a question as to whether or not they had an accurate conceptualization of what that relationship entailed before their NIFTY NUGGET experience. Examining the Joint Chiefs' criticisms of the study alternative that would have created an agency similar to the Joint Deployment Agency provides a look at how they conceptualized transportation issues without the benefit of simulation.

Under this particular study alternative all three services' transportation managers, even the Military Airlift Command, would be responsive to a transportation management agency which would report to the Secretary of Defense through the Joint Chiefs of Staff (see appendix D).<sup>30</sup> The Joint Chiefs

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<sup>29</sup> Joint Chiefs of Staff memorandum JCSM-264-77, dated 15 June 1977, sent to the Secretary of Defense, Subject: Transportation Operating Agency Organization Alternatives, 1, file 32-A-3-A, RG 32, TCRC.

<sup>30</sup> Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, 5.

cited five specific disadvantages to this alternative. First, the Joint Chiefs did not like the idea of adding an additional organizational element into the Chain of Command between the Joint Chiefs and the transportation managers. Second, they were against the idea of removing the military department secretaries from their "historic role" as single managers over their services transportation assets. Third, while they agreed that having one single manager for transportation did seem advantageous under this organizational structure, the additional headquarters would require increased manning without decreasing any manning requirements at the service levels. Fourth, this plan would place the Joint Chiefs of Staff between the Secretary of Defense and the service transportation agencies, a role to which they were unaccustomed. Finally, they were wary of making the unprecedented move to place combatant forces under the direction of an agency and not a service.<sup>31</sup>

Clearly, NIFTY NUGGET revealed those five concerns to be less consequential than the need for coordination. Yet, in 1977 the Joint Chiefs of Staff did not have the benefit of that experience to guide their thinking and conceptualization of these transportation issues. Some will argue, nevertheless, that as senior military leaders responsible to the nation for ensuring that its armed forces are prepared to deploy around the world, they ought to have been able to envision such problems even without a simulation exercise. Such arguments, however, do not change the fact that for some reason, in 1977, the

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<sup>31</sup> Ibid., 33-34.



leaders serving on the Joint Staff, although stating that warfighting was their primary criterion, placed a much greater focus on bureaucratic concerns. Economic considerations, political agendas, and organizational power structures and relationships ruled the day. Then, for at least a short time in 1978, this bureaucratic noise was muted by the NIFTY NUGGET simulation exercise which demonstrated to military leaders in a stark, frighteningly realistic way the strengths and weaknesses of their current system of operations. When forced to confront these problems head on, warfighting concerns moved to the forefront and bureaucratic concerns became simple hurdles to be overcome.

Thus this study argues that the primary reason the Joint Chiefs of Staff retained their flawed transportation system in 1977 was because bureaucratic rather than warfighting concerns drove their decisionmaking. Their inability to accurately conceptualize the numerous intangibles of warfighting caused them to emphasize more tangible and familiar bureaucratic issues. This, however, is only one explanation; others may be offered. One place to search for alternative explanations for these historical events is in the body of scholarly literature studying the military and its capacity to innovate.

## **Other Explanations**

A recent study from the RAND Corporation identified and defined several dominant perspectives within the field of military innovation.<sup>32</sup> The first perspective comes out of the structural realist school led by Kenneth Waltz. It argues that a military's incentive to innovate stems from the external security environment that it faces. In a high-threat environment, change is motivated by survival, while in a situation with assured state security, change is likely to be almost nonexistent.<sup>33</sup> A scholar from this school examining the facts from this study might conclude that the primary reason the Joint Chiefs retained the status quo in 1977 was that no new external threat occurred to push them toward change. The Joint Chiefs were facing the same threat situation from the Soviet Union and the Warsaw Pact to which they had become accustomed. For an organization like the United States military to voluntarily strike out in a new direction during a period of relative stability would have been highly unusual.

A second perspective comes from scholars who support a societal perspective. These scholars focus on those "factors that a state needs to facilitate innovation."<sup>34</sup> Scholars from this school find that military organizations are more likely to innovate if they are situated in a "cohesive host society"

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<sup>32</sup> Jeffrey A. Isaacson, Christopher Layne, and John Arquilla, *Predicting Military Innovation* (Santa Monica, CA: RAND, 1999), 11.

<sup>33</sup> *Ibid.*, 12.

<sup>34</sup> *Ibid.*, 14.

because such societies make the resources required for change, such as materials and manpower, readily available.<sup>35</sup> Generally the United States is thought to be such a society. This impression changes, however, when one considers that a finite amount of money is appropriated to defense spending each year. Thus, in matters of budget and spending military leaders in the United States are involved in a zero-sum game; any new projects taken on require that resources be taken away from others. In their 1977 study one of the primary concerns the Joint Chiefs expressed against the study alternative for an organization similar to the Joint Deployment Agency was that it would have required additional manpower and, although not specifically cited, the Joint Chiefs were certainly aware that it would also require additional money. Therefore, scholars from this school might conclude that the primary reason the Joint Chiefs selected to maintain the status quo in 1977 was that they did not want to spend their political capital for changes in transportation.

A third perspective comes from scholars who take an institutionalist approach to organizational innovation. These scholars have a tendency to be very "pessimistic about the likelihood that military organizations will innovate successfully."<sup>36</sup> Political scientist, Barry R. Posen, favors this perspective, finding that military organizations are likely to change only when they suffer defeat or

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<sup>35</sup> Ibid.

<sup>36</sup> Isaacson, Layne, and Arquilla, *Predicting Military Innovation*, 17.

when civilian leaders intervene.<sup>37</sup> Posen argues that large organizations like the military are conservative and view new ideas as a threat to already established spheres of influence. Leaders in the military like to keep uncertainty to a minimum, which means that standard operating procedures are valued and any change that threatens to disrupt those procedures is viewed unfavorably. Following such practices produces a stable environment because everyone knows their job and their place in the system.<sup>38</sup> Posen and others who follow this approach are likely to argue that the Joint Chiefs retained the status quo in 1977 because it was the least disruptive choice. If not forced to do so by civilian intervention or failure, why disrupt one's operating system?

Explanations are not limited to theories coming out of military innovation literature. Another explanation is provided from the field of cognitive psychology, which offers valuable insight into decision-making behavior by examining how people assimilate new information. A person receiving new information will generally assimilate it into his or her existent belief structure. This practice is driven by the sheer impracticality of having to readjust one's belief system every time a new fact is learned. As a result, a person's belief system remains fairly consistent over time. Normally a significant readjustment will occur only when a large amount of contradictory information is received all at one time or when

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<sup>37</sup> Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars* (Ithaca: Cornell University Press, 1984).

<sup>38</sup> Isaacson, Layne, and Arquilla, *Predicting Military Innovation*, 17.

contradictory information is received in a very emotionally painful or striking way. Thus, the manner in which information is received is as important as its content. A military leader is likely to be affected much more by information he has received firsthand than from information received through a memorandum or briefing. Perhaps that explains why military leaders on the Joint Chiefs of Staff chose to retain the status quo in 1977. At that time all the information they received about the transportation system came from second- or third-hand sources and in the form of briefings or written reports. This is in contrast to their experience in 1978, when they were furnished with vivid, firsthand information from the NIFTY NUGGET simulation exercise, information which appears to have packed a much more potent punch.<sup>39</sup>

This study has asked readers to accept several judgments: first, that the leaders serving on the Joint Chiefs of Staff in 1977 recognized the importance of the nation's military transportation system's responsive to the direction of the National Command Authority; second, that even though those leaders recognized that their current system of command and control did not optimize service responsiveness they still considered it to be the best in meeting all considerations; third, that the primary reason military leaders retained the status quo stemmed from their inability to accurately conceptualize warfighting issues

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<sup>39</sup> See: Robert Jervis, Richard Ned Lebow, and Janice Gross Stein, *Psychology and Deterrence*, (Baltimore: The John Hopkins University Press, 1985); Richard Ned Lebow, *Between Peace and War: The Nature of International Crises*, (Baltimore: The John Hopkins University Press, 1981); Robert Jervis, *Perception and Misperception in International Politics*, (Princeton: Princeton University Press, 1976).

which left bureaucratic issues to drive their decisionmaking; and lastly, that the Joint Chiefs' decision was based upon what they sincerely believed was best for national security.

Instead, it may be argued that the Joint Chiefs based their decision for the status quo upon a desire to satisfy internal political objectives. In other words, they recognized that maintaining the status quo was not the best alternative but accepted it to avoid organizational strife. Interservice rivalry should always be taken into consideration when examining and assessing military decisions and activities, for no service wants to relinquish dollars, responsibility, or authority to another. Historically many fierce battles have been waged between the three services over such issues. As discussed in the beginning of this work, the transportation system as it stood in 1977 was one that had been pieced together by the Office of the Assistant Secretary of Defense in 1955 to maintain peace between the services by splitting responsibilities for transportation between all of them.

In 1971, Admiral Thomas Moorer and the other officers serving on the Joint Chiefs had been forced to go in front of Congress to fight off an effort by the Secretary of Defense to transfer a number of its transportation functions away from the Navy to the Army. The Navy was adamantly opposed to the idea and gathered enough support to have their view supported by Congress. When this new study on transportation came across their desks in 1977 military leaders

serving on the Joint Staff undoubtedly knew exactly how their service stood on the issues and also how those issues had been debated and resolved in 1971. It is conceivable that they simply did not wish to go back down the road of further studies and hearings, only to return yet again to the system they had been working with since the 1950s.

Nevertheless, it is especially interesting that the Chief of Staff of the Army did not come forward and argue for the one study alternative that would have implemented that same system they had fought for in 1971. One can imagine many different explanations for such behavior. Perhaps the other service chiefs exerted pressure on him to ensure that he towed the line, or maybe he realized that it was not a battle that he was likely to win or one that he wished to fight at that time. Conceivably he supported the decision because he felt it was important for the Joint Staff to send a united message to the civilian leaders serving in Congress. It may be reasonable even to imagine that he used his support on this matter as a bargaining chip for support from the other service chiefs on a completely unrelated matter. Any number of explanations seem possible, even that he truly did believe that status quo was the best alternative.

A similar line of reasoning can be extended past the 1977 study to the NIFTY NUGGET exercise itself. Thus far this study has largely accepted the Joint Staff's post-exercise analysis report's claims that the exercise was primarily designed to test mobilization and that military leaders were surprised to find so many transportation problems. It is easy to imagine that officers working on the

exercise design may have structured the play in a way that would bring specific issues to light. Junior leaders may have grown weary of their superior's hesitancy to tackle transportation system problems and sought a way to force those senior leaders to confront the issues.

Proving that the Joint Chiefs based their decisions on a desire to satisfy internal political objectives proves to be just as problematic as proving that the decision was based on sincere reasoning. Again, more research is required to locate those officers who were involved in the events as participants to see if they will provide a more detailed explanation than that left behind in their written documents.

Regardless of whether one believes theory one, that the Joint Chiefs sincerely believed they had made the right choice for national security, or theory two, that the decision was made to satisfy internal political objectives, in the end it seems that one is still left with the same result: in 1977, military leaders allowed bureaucratic rather than warfighting considerations to drive their decisionmaking.



## CHAPTER 4

### CONCLUSION

The military leaders serving on the Joint Chiefs of Staff in 1977 understood that it was important for the nation's military transportation system to be responsive to the direction of the National Command Authority. They demonstrated this understanding not only by undertaking a study to identify and evaluate which system of military command and control would ensure the best responsiveness to the direction of the National Command Authority in times of crisis and war, but also by their statements made throughout that study regarding how important responsiveness was.

In their study they determined that their current system of command and control, while not maximizing all services responsiveness to the NCA, was still the best option of those considered. They disregarded one alternative that would have created an agency similar to the Joint Deployment Agency, citing concerns over adding an additional organizational element into the Chain of Command, removing military department secretaries from their role as managers over their services transportation assets, adding a requirement for more manpower, placing the Joint Staff in between the Secretary of Defense and service transportation agencies, and placing combatant forces under the direction of an agency and not a service.

In 1978, a computer simulation, code named NIFTY NUGGET, identified serious deficiencies in the military transportation system that the Joint Chiefs

were relying upon to carry out the security strategy of the nation; a strategy that relied heavily upon conventional forces being able to rapidly deploy around the world. Once those shortcomings were identified the Joint Chiefs immediately set out to implement changes in their operating system.

The primary purpose of this study has been to determine why the military leaders serving on the Joint Staff in 1977 retained a military transportation system that proved unable to fulfill the nation's needs in 1978. Were the leaders on the Joint Chiefs of Staff aware of these problems? If so, why had they not been corrected? If not, why not?

In the end, this study has argued that the Joint Chiefs retained a flawed transportation system in 1977 because economic considerations, organizational power structures and relationships and other bureaucratic concerns focused their decisionmaking rather than warfighting concerns. The primary reason those bureaucratic issues were able to drive decisionmaking was that they were more familiar and tangible to military leaders than warfighting concerns, which remained quite intangible and difficult to conceptualize. Furthermore, this study has argued that the Joint Chiefs made their decisions in 1977 without pressure from either Congress or the Office of the Secretary of Defense, and that the decision was based on a sincere belief of what was best for the nation's security. Nevertheless, the study has conceded that other explanations can be provided to describe these historical events and that more research should be conducted to

bring further clarity to these issues under discussion. Lastly, this study has argued that the power of simulation exercises like NIFTY NUGGET stem from their ability to make warfighting concerns tangible and thus easier for military leaders to conceptualize.

In the end this study helps us to appreciate how many different influences exert pressure over leaders serving in the United States military. It is clear that military leaders do not operate in a vacuum, free from political and economic pressures. Instead, they operate in an environment where they are consistently buffeted by partisan politics, political power struggles, and fights over scarce governmental resources. To survive those battles military leaders have learned to hone their political tactics and strategies. Unfortunately, from this case study it appears that those efforts have come at a price. Greater emphasis on preparing for political battle has resulted in less emphasis on preparing for military battle. Fortunately military leaders in the United States have found that powerful simulation exercises like NIFTY NUGGET may reverse their tendency to allow bureaucratic concerns to override warfighting concerns.

## APPENDIX A-1 – NIFTY NUGGET PARTICIPANTS<sup>1</sup>

### APPENDIX

#### EXERCISE NIFTY NUGGET/REX-78 PARTICIPANTS

##### DEPARTMENT OF DEFENSE

- The Office of the Secretary of Defense
- The Organization of the Joint Chiefs of Staff
- U.S. Army
- U.S. Navy
- U.S. Air Force
- U.S. Marine Corps
- Aerospace Defense Command
- Atlantic Command
- U.S. European Command
- Military Airlift Command
- Pacific Command
- U.S. Readiness Command
- U.S. Southern Command
- Strategic Air Command
- Defense Civil Preparedness Agency
- Defense Communications Agency
- Defense Intelligence Agency
- Defense Logistics Agency
- Defense Mapping Agency
- Defense Security Assistance Agency
- National Security Agency

##### FEDERAL CIVIL DEPARTMENTS AND AGENCIES

- Department of Agriculture
- Department of Commerce
  - Industry and Trade Administration
  - Maritime Administration
  - National Oceanic and Atmospheric Administration
- Department of Energy
- Department of Health, Education, and Welfare
  - U.S. Public Health Service
- Department of Housing and Urban Development
- Department of Interior
- Department of Justice
- Department of Labor
- Department of Transportation
  - Federal Aviation Administration
  - United States Coast Guard
- Department of State
- Department of the Treasury
- General Services Administration
- Veterans Administration
- Central Intelligence Agency
- Environmental Protection Agency
- Federal Preparedness Agency
- Civil Service Commission

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<sup>1</sup> Note this source document is located at TCRC in a safe with the other documents of the NIFTY NUGGET collection. This document is not assigned a record number.

## APPENDIX A-2 – NIFTY NUGGET PARTICIPANTS<sup>2</sup>

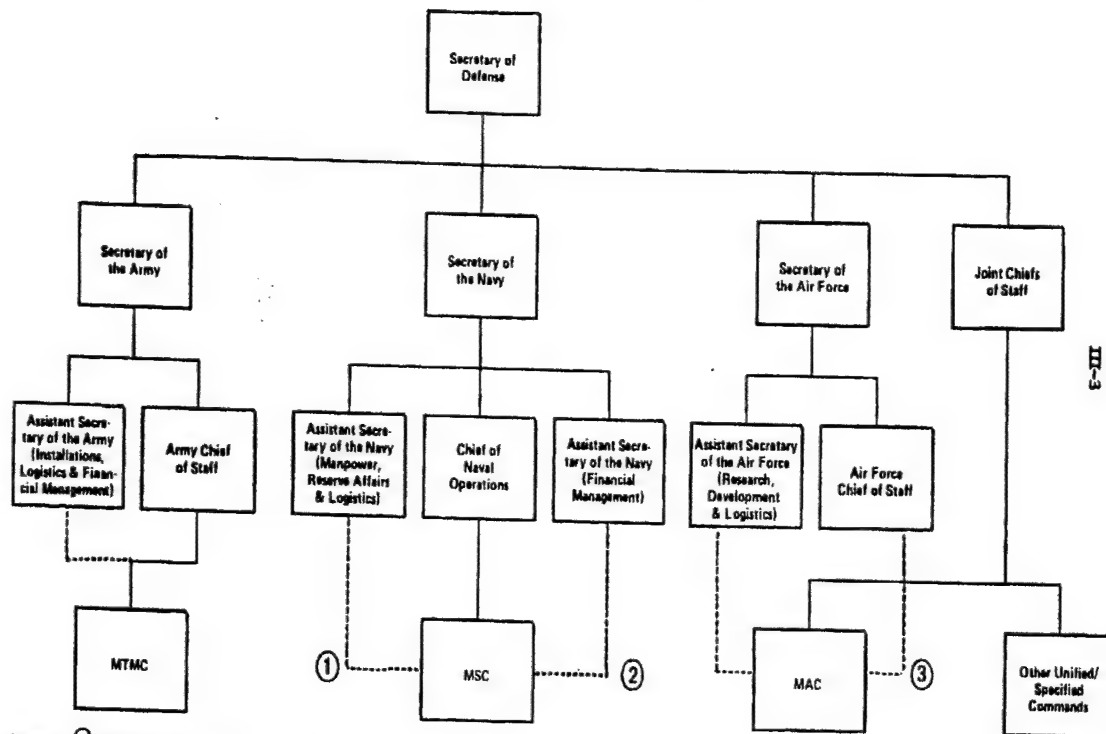
Interstate Commerce Commission  
Nuclear Regulatory Commission  
Federal Reserve System  
National Communications System  
Selective Service System  
Civil Aeronautics Board  
United States Postal Service  
United States Secret Service

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<sup>2</sup> Ibid.

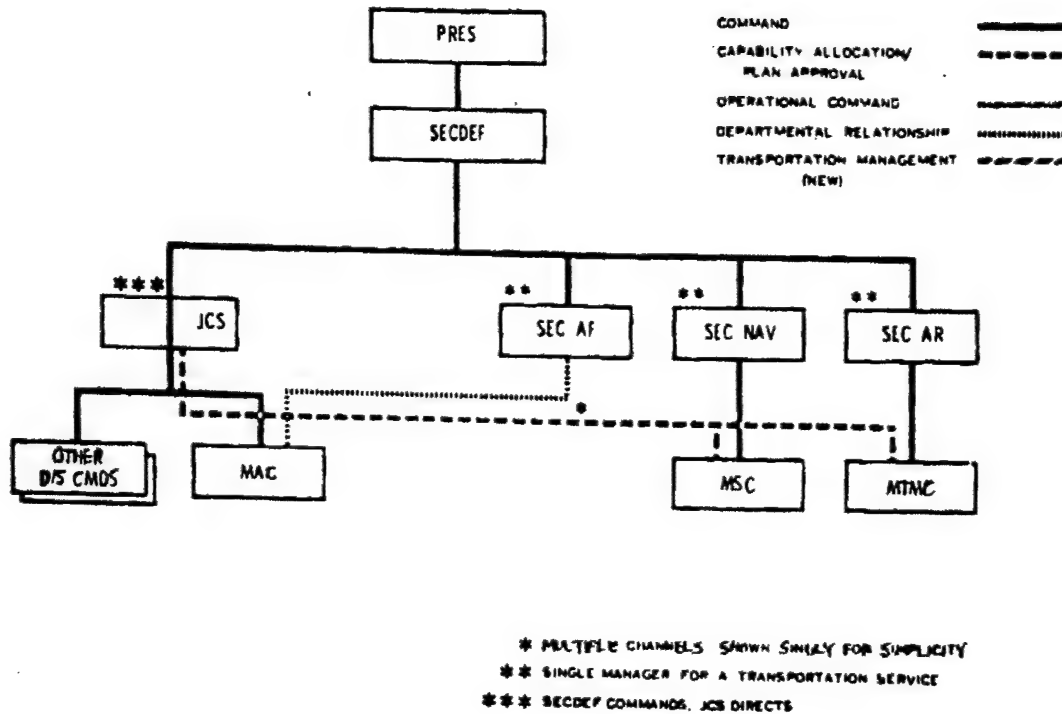
## APPENDIX B – DEFENSE TRANSPORTATION SYSTEM<sup>3</sup>

EXHIBIT III-1  
CURRENT ORGANIZATIONAL ALIGNMENT:  
DEFENSE TRANSPORTATION SYSTEM



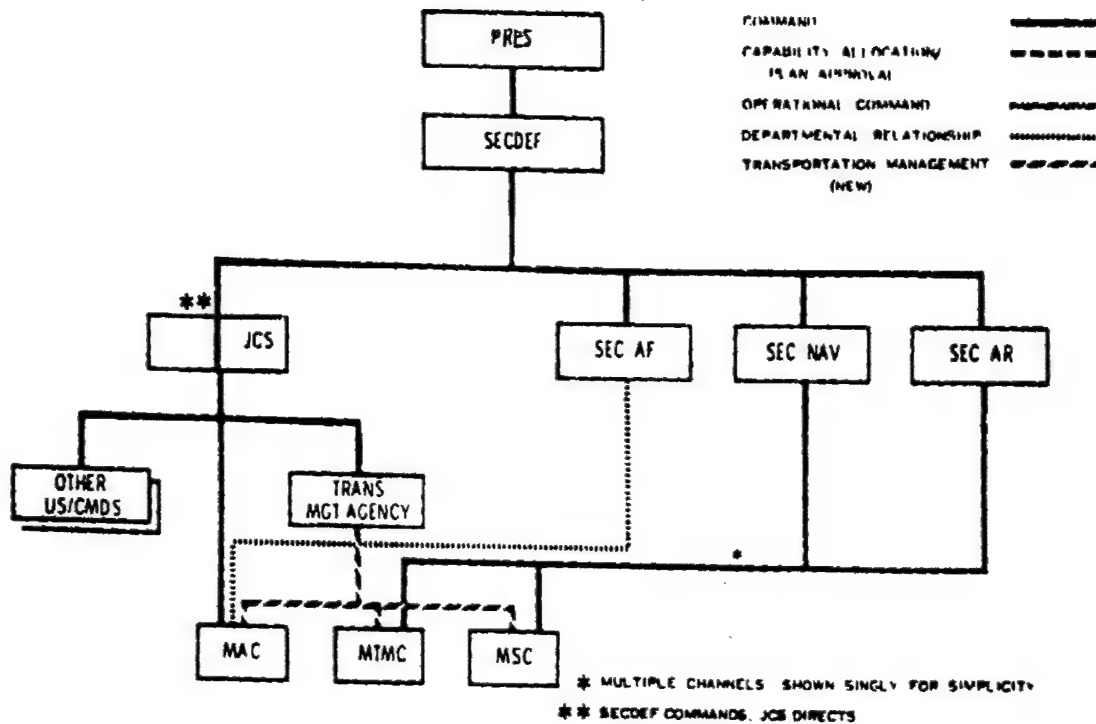
<sup>3</sup> Harbridge House, A Study of DoD Organization for Transportation and Traffic Management (Boston, Mass.: Harbridge House, 1980), III-3, File 32.A-6-A, RG 32, TCRC.

## APPENDIX C – STATUS QUO<sup>4</sup>



<sup>4</sup> Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, Appendix to JCSCM-264-77, 13, file 32-A-3-A, RG 32, TCRC.

## APPENDIX D – TRANSPORTATION MANAGEMENT AGENCY<sup>5</sup>



<sup>5</sup> Report on the Analysis of Alternatives for Control of the Military Airlift Command, The Military Sealift Command, and the Military Traffic Management Command, Appendix to JCSC-264-77, 33, file 32-A-3-A, RG 32, TCRC.



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